

PROJECT NUMBER: 1333
PROJECT TITLE: Semiworks Process Control
PROJECT LEADER: D. A. Phan
PERIOD COVERED: January, 1989

- A. Objective: Evaluate and revise the process control and data acquisition system to improve processing performance and production quality.

B. Results:

Onspec Control/Data Acquisition Software (Oliver/Sims) - Installation of the Onspec control and data acquisition software on an IBM-AT compatible computer was completed and successfully checked out. The software package, purchased from Heuristics Co., is currently used for historical data storage and trending of all important process points in the Semiworks large-scale primary. Data acquisition of process data is accomplished via the Fisher Controls Provox data highway. Daily process files are currently archived on floppy disks. Training was provided to the control room operators for basic operation such as data trending and archival.

Semiworks Primary Process Control System Upgrade (Phan) - Work is underway to examine the total Semiworks primary process control system and come up with a proposal to upgrade the system for improving system performance and maintainability. A project team is being formed that will include personnel from R&D TP&F, Computer Applications division, and PMUSA - Engineering.

Cutter Steam Cylinder Upgrade (Oliver) - Work is underway in collaboration with M. Webster of Semiworks Process Development group to replace the process steam and water piping for improving system performance and maintainability. The project should be completed by April 89.

Modicon Datahighway Replacement (Oliver) - Parts have been ordered to replace the PLC-1 Modicon datahighway from the preblend area to the total blend for improving system reliability. The project should be completed by March 89.

Small Scale Primary Operation Upgrade (Phan/Oliver) - Instrument and electrical cost estimate for the project was provided to T. Skidmore for the preparation of the 650 appropriation request. Meeting was held with Boothe and Skidmore, to review the dryer and conditioner design. Dryer design will include ductwork and damper to bypass the incoming hot air to improve temperature control during the drying cycle.

- C. Plans: Complete process and instrument diagram selection of a control system for the small scale operation process. Complete verification work on the Computrac moisture analyzers. Continue providing electrical plant engineering support to the Semiworks and conduct routine QA functions.